

REMARKS

The Examiner is thanked for the courtesy of a brief telephone interview during which the pending Office Action, a final rejection, mailed October 17, 2007 was discussed. During the discussion the undersigned noted that although the Action included a rejection under 35 U.S.C. §112, first paragraph, of the amendment to claim 1, element (C) relating to the amount of the phosphorous-containing acidic component, the Office Action did not consider the substance of that amendment as it related to the rejections under 35 U.S.C. §103(a) in view of U.S. 4,500,424 to Simpson et al. (hereinafter "*Simpson*"). The Examiner acknowledged that, in spite of the rejection under 35 U.S.C. §112, first paragraph, the substance of the amendment should have been considered and that it would be appropriate to file a request for reconsideration for that purpose. The undersigned also stated that more specific support for the above-noted amendment should have been identified in the prior response, which support would most likely have obviated the rejection under 35 U.S.C. §112, first paragraph. This request for reconsideration addresses this issue and includes further arguments in support of patentability in view of the amendment.

It is respectfully requested that the previously amended claims, submitted with Applicant's response dated July 31, 2007 be reconsidered in view of the following remarks.

Claim 24 was amended to emphasize distinguishing characteristics of compositions used for producing catalysts according to the methods of the present invention. Clear support for the amendment to Claim 24, element (C) can be found in paragraph [0020] wherein it is stated:

" . . . at least one substantially water soluble, phosphorous-containing acidic component in an amount

insufficient to cause dissolution of the Group VIII metal component"

Entry of the amendment, withdrawal of the rejection under 35 U.S.C. §112, first paragraph and reconsideration of the amended claims are respectfully requested.

Claims 24-52 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Simpson*. Respectfully, the amended claims, particularly including the amendment to Claim 24, element (C), are believed to be distinguished from *Simpson*.

Prior correspondence between the Office and Applicant addressed the issue of a misstatement in *Simpson* regarding the aqueous solubility of Group VIII carbonates. The statement in *Simpson* that such compounds "are water-soluble" (col. 7, line 19-22) was shown by Applicant to be clearly erroneous based on substantial evidence (including excerpts from standard reference texts). However, the Office is correct that *Simpson* discloses that Group VIII metal carbonates such as cobalt and nickel can be used in preparing its catalyst.

Simpson refers in several places to utilizing the teachings of U.S. 3,840,472 (*Colgan et al.*) for preparing the impregnating solution useful with the carrier of the *Simpson* invention; see, for example, col. 1, lns. 31-36; col. 1, lns. 44-50; col. 7, lns. 27-30; and col. 12, lns. 50-52 (Example 1). In other words, the invention in *Simpson* is clearly not directed to the metal impregnating solution or its method of preparation, but instead relies on the teachings and methods of *Colgan*. In that regard, it is significant that *Colgan* explicitly states:

"The phosphoric acid must be present in an amount sufficient to dissolve the various promoter materials and to maintain their solubility over a substantial time

period so that uniform impregnation of these promoters materials may be achieved."

(col. 2, lns. 19-23)

"In preparing the promoter solution of the present invention, it is necessary to dissolve the various ingredients in water under conditions which will effect dissolution and provide the specified concentrations of ingredients. Several alternative procedures may be employed to achieve solutions of high stability."

(col. 4, lns. 21-26)

The "alternative procedures" disclosed by Colgan include dissolving the Group VIII metal salt first and then adding and dissolving the Group VI metal salt as well as dissolving the Group VI metal salt first and then adding the Group VIII metal salt (col. 2, lns. 58-72). However, in each instance, Colgan explicitly states that the metal salts are each "dissolved" in the aqueous phosphoric acid solution. Simpson uses the latter procedure, molybdenum trioxide (Group VI) first, in Example 1:

"The catalyst of the invention compared against the commercial catalyst is prepared as follows: 270 ml of 85 percent phosphoric acid (H_3PO_4) is slowly stirred into 1,240 ml of water in a three liter beaker, the resulting solution is brought to a boil, and 750 grams of molybdenum trioxide (MoO_3) is stirred vigorously into the boiling solution. Then 250 grams of cobalt carbonate (CoCO_3) is added, with liberation of carbon dioxide (CO_2) during dissolution. A clear red solution is obtained after heating and mixing for six hours. After dissolution of the cobalt carbonate, an impregnant solution having a volume of 2,000 mls. is obtained. This solution is

similar to a solution utilized in making a catalyst taught in U.S. Pat. No. 3,840,472."

(Col. 12, lines 39-52)

In contrast to the teachings of *Simpson*, which are based on *Colgan*, Applicant's composition would be considered unacceptable and unstable because the amount of phosphoric acid is insufficient to dissolve the Group VIII metal salt.

Finally, it is observed that Example 1 of *Simpson* reports the evolution of CO₂ which necessarily results from the reaction of phosphoric acid with the Group VIII (cobalt) carbonate "during dissolution," thus suggesting that the carbonate is completely reacted since a solution is obtained. In contrast, since a lesser amount of phosphoric acid is used in Applicant's composition, the Group VIII metal carbonate is necessarily in different forms: (1) chemical, mixture of phosphate and carbonate; and physical, slurry and solution, during preparation of the impregnating composition. Thus the interaction of the catalytically active metal components with one another, and subsequently with the carrier, is different in the present invention compared to *Simpson*.

Clearly, Applicant has developed a different impregnating composition as well as a different method of preparing a catalyst and those differences are not suggested or taught in *Simpson*; in fact, they are contrary to the teachings of *Simpson*.

In conclusion, the present claims are distinguished from *Simpson* and withdrawal of the rejection of the claims is respectfully requested.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

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If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone Applicant's attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: January 18, 2008

Respectfully submitted,

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